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EXAMINER	
INGVOLDSTAD, BENNETT	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/609,000	REYNOLDS ET AL.	
	Examiner	Art Unit	
	Bennett Ingvoldstad	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date All.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 7, 9, 12, 13, 15-17, 27, 32, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Hendricks (US 5990927).

Claim 1, Hendricks discloses:

A method of producing a video signal at a set top box comprising:

receiving a first video signal at said set top box ("compressed... program signals" col. 10, line 50);

processing said first video signal to produce a first image ("graphics" col. 11, 1-5) stored in memory of said set top box (col. 10, 55-56);

receiving a second video signal at said set top box (same method as first signal);

processing said second video signal to produce a second image stored in said memory of said set top box (same method as first signal);

accessing a presentation description ("basic menu format information", col. 11, 14-15) that defines a portion of said first image and that defines the manner in which said portion of said first image and a portion of said second image are combined (combination of menu templates, col. 11, 5-8);

combining said portion of said first image with said portion of second image in accordance with said presentation description to produce a combined image (menu generation, col. 11, 18-20); and

displaying said combined image (col. 11, 20-23).

Claim 2, Hendricks further discloses:

wherein said step of combining further comprises:

applying a mask that defines said portion of said first image (inherent when menu contains cursor highlight overlay, col. 11, line 7).

Claim 3, Hendricks further discloses:

wherein said step of combining said video signals further comprises:

generating a logical combination of said portion of said first image and said portion of said second image (applying a mask to combine images, as discussed for claim 2, anticipates a logical combination of images)

Claim 4, Hendricks further discloses:

wherein said step of combining said video signals further comprises:

generating a mathematical combination of said portion of said first image and said portion of said second image (applying a mask to combine images, as discussed for claim 2, anticipates a mathematical combination of images)

Claim 5, Hendricks further discloses:

wherein said step of combining said video signals further comprises:

scaling said portion of said first image (scaling video for a menu, col. 20, line 8, wherein video may be still pictures, col. 19, line 64)

Claim 7, Hendricks further discloses:

The method of claim 1 wherein said step of accessing said presentation description further comprises:

accessing said presentation description across a network (across the CATV network; col. 14, 12-15).

Claim 9, Hendricks further discloses:

The method of claim 1 wherein said step of accessing said presentation description further comprises:

selecting said presentation description from a plurality of presentation descriptions ("menu assignment for each program", col. 13, line 62) contained in said first video signal ("sent using the program control signal" col. 13, 56-57).

Claim 12, Hendricks discloses:

A method of displaying a sequence of combined images in a set top box comprising:

receiving a first video signal at said set top box (input signal into Tuner 603, Fig. 14, see also col. 32, 12-14);

processing said first video signal to produce a first sequence of images (video component of the input signal, col. 32, 51-52) stored in memory of said set top box (col. 32, 52-53);

receiving a second video signal at said set top box (input signal into Tuner 2 603', Fig. 14);

processing said second video signal to produce a second sequence of images stored in said memory of said set top box (same method as first signal);

accessing a presentation description that defines a portion of said first sequence of images and that defines the manner in which said portion of said first sequence of images and a portion of said second sequence of images are combined (the video combiner determines how to combine the signals, which implies a presentation description; see col. 32, 60-62);

combining said portion of said first sequence of images with said portion of said second sequence of images in accordance with said presentation description to produce a sequence of combined images (performed by video combiner; col. 32, 60-62); and

displaying said sequence of combined images (col. 32, line 63).

Claim 13, Hendricks further discloses:

wherein said step of combining further comprises:

applying a mask specified in said presentation description that defines said portion of said first sequence of images (a mask is inherent for picture-on-picture; see col. 33, 19-20; "overlaying images").

Claim 15, Hendricks further discloses:

wherein said step of combining said video signals further comprises:

generating a mathematical combination of said portion of one image of said first sequence of images and said portion of one image of said second sequence of images

(anticipated by applying a mask to combine a sequence of images, as discussed for claim 13).

Claim 16, Hendricks further discloses:

wherein said step of combining said video signals further comprises:

generating a logical combination of said portion of one image of said first sequence of images and said portion of one image of said second sequence of images (anticipated by applying a mask to combine a sequence of images, as discussed for claim 13).

Claim 17, Hendricks further discloses:

wherein said step of combining said video signals further comprises:

scaling said portion of one image of said first sequence of images (anticipated by scaling of sequence of images, col. 31, 10-12).

Claim 27, Hendricks discloses:

A set top box that produces a combined video signal comprising:

a processor (microprocessor 602, Fig. 10);

a memory (RAM and ROM, Fig. 10);

a tuner/decoder (tuner 603, Fig. 10) that receives a first video signal and a second video signal substantially simultaneously (multiple tuners may be used to receive simultaneous signals, col. 6, 27-30) and that routes control information contained in said first video signal to said processor ("control signals ...extracted ...executed immediately", col. 6, 26-27) and that routes first video data from said first video signal and second video data from said second video signal to a decoder ("decompression hardware may be used to decompress video"; col. 6, line 29);

said decoder that decodes said first video data and produces a first video image in said memory and that decodes said second video data and produces a second video image in said memory (the program signal can be demultiplexed into graphics, col. 11, 1-5, which are stored in memory, col. 10, 55-56)

a presentation description stored in said memory that specifies the manner in which a portion of said first video image is combined with a portion of said second video image to produce said combined signal ("basic menu format information", col. 11, line 14);

program code operating in said processor that employs said presentation description and that accesses said portion of said first video image and said portion of said second video image in said memory and that combines said first portion of said first video image and said portion of said second video image in a manner specified by said presentation description (col. 11, 18-20); and

a video output unit that outputs said combined signal to a display device (col. 11, 21-22).

Claim 32, Hendricks further discloses:

user preference information stored in said memory that is used by said presentation description (the set top terminal displays programs the user may like based on user preference information, col. 34, 26-28).

Claim 35, Hendricks discloses:

A set top box that produces a combined video signal (Abstract) comprising:

processor means that process a presentation description and that control the manner in which images are combined (Fig. 14);

memory means (memories 620 and 620', Fig. 14) that store software executable by said processor means (col. 15, 53-54) and that store video images(col. 10, 55-56);
tuner/decoder means that receive a first video signal (tuner 603, Fig. 14) and a second video signal (tuner 603', Fig. 14) and that route control information contained in said first video signal to said processor means (Fig. 14) and that route first video information from said first video signal and second video information from said second video signal to decoder means (to demodulators, demuxers, and decrypters, Fig. 14);
decoder means that decode said first video information and produce a first video image in said memory means and that decode said second video information and produce a second video image in said memory means (video/graphics/text demuxers 314 and 314');
presentation description means that specify the manner in which a portion of said first video image is combined with a portion of said second video image to produce a combined image (video combiner in control of microprocessor, Fig. 14); and
video output means that output said combined image to a display device (video outputs, Fig. 14).

3. Claims 20 and 22-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Rosser (US 6446261).

Claim 20, Rosser discloses:

A method of controlling generation of a combined video signal in a set top box unit at a user's premises from a broadcast site comprising:

transmitting a first digital video signal to said set top box (video stream, col. 7, line 50);

transmitting a second digital video signal to said set top box substantially simultaneously with said first digital video signal ("graphic or video, ... attached to video stream, col. 7, 48-50);

loading image combination code into said set top box ("information generated by the recognition unit 18, the tracking unit 20, and the occlusion mask production unit 22,") ; and

providing a presentation description to said set top box that describes the manner in which a portion of an image contained in said first digital video signal is combined with a portion of an image contained in said second digital video signal to produce said combined video signal (occlusion mask, Fig. 2).

Claim 22, Rosser further discloses:

wherein said step of providing a presentation description further comprises:

transmitting said presentation description to said set top box as a part of said first digital video signal (the information mixed in with the video signal includes the occlusion mask, see col. 7, 37-45).

Claim 23, Rosser further discloses:

wherein said step of providing a presentation description further comprises:

selecting said presentation description from a plurality of presentation descriptions wherein said presentation description conforms to the requirements of said set top box (multiple insertions can be stored in memory, which implies a selection of the associated overlay; col. 7, 55-58).

Claim 24, Rosser further discloses:

wherein said step of providing a presentation description further comprises:

altering a general presentation description to conform to the requirements of said set top box (implied; "strip off, interpret, and use the information mixed in with the video signal" col. 7, 37-38).

Claim 25, Rosser further discloses:

wherein said step of providing a presentation description further comprises:

tailoring a general presentation description to correspond to a viewer preference (insertions are selected based on viewer usage profile keys, col. 7, 52-54).

Claim 26, Rosser further discloses:

wherein said step of providing a presentation description further comprises:

transmitting a plurality of presentation descriptions to said set top box from which said set top box selects one presentation description that conforms to the requirements of said set top box (multiple insertions can be downloaded and stored in memory, which implies a selection of the associated overlay; col. 7, 55-58).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 6, 10, 11, 14, 18, 19, 29, 30, 31, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks (US 5990927) in view of Rosser (US 6446261).

Claim 6, Hendricks does not further disclose wherein said step of combining said video signals further comprises:

warping said portion of said first image.

Rosser discloses a method of producing a video signal at a set top box (Abstract) wherein a step of combining video signals comprises warping a portion of a first image (col. 3, 22-25)

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to warp a portion of an image as disclosed by Rosser for the purpose of correctly matching the image to the background image (col. 3, 23-25)

Claim 10, Hendricks does not further disclose modifying said presentation description in response to a user input.

Rosser discloses a method of producing a video signal at a set top box (Abstract) wherein the presentation description is modified in response to a user input (windows are resizable, magnifyable, and rotatable by the user; col. 5, 27-30)

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to modify the presentation description in response to a user input as disclosed by Rosser

for the purpose of magnifying a window "to examine some detail of the video" (col. 5, 28-29) or rotating a window "for people who may want to lie down" (col. 5, line 30).

Claim 11, Hendricks does not further disclose:

processing said first video signal to produce first audio data stored in said memory of said set top box;

processing said second video signal to produce second audio data stored in said memory of said set top box;

accessing a presentation description that describes the manner in which said first audio data and said second audio data are combined; and

combining said first audio data and said second audio data in accordance with said presentation description.

Rosser discloses a method of producing a video signal at a set top box (Abstract) that processes a first video signal (original video, col. 3, line 23) to produce a first audio data stored in the memory of said set top box (stored in memory as part of the buffer of the program that is being watched; col. 5, 33-36);

processing a second video signal (alternative feed, col. 13, line 24) to produce a second audio data in the memory (stored in video/audio storage unit 152; fig. 4, col. 13, 24-25);

accessing a presentation description that describes the manner in which in which said first audio data and said second audio data are combined (inherent; the video/audio mixer 156 must have some sort of description of how to mix the audio streams); and

combining said first audio data and said second audio data in accordance with said presentation description ("insertion is mixed into the video and audio stream" col. 14, 57-58, where the insertion can be an audio insertion; col. 14, line 46).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to store two audio data processed from video signals and mix them together as disclosed by Rosser for the purpose of making audio insertions into a buffered program (col. 5, 33-36; col. 14, 45-47).

Claim 14, Hendricks does not further disclose:

executing program code that modifies said mask to select a different portion of at least one image of said first sequence of images.

Rosser discloses executing program code that modifies a mask to select a different portion of at least one image of a first sequence of images (Rosser discloses and enhanced picture-on-picture in which the overlayed window is magnifyable; col. 5, 23-30).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to modify a mask to select a different portion of at least one image of a first sequence of images as disclosed by Rosser for the purpose of magnifying a video window to be able to examine some detail of the video (col. 5, 28-29).

Claim 18, Hendricks does not further disclose:

wherein said step of combining said video signals further comprises:

warping said portion of one image of said first sequence of images.

Rosser discloses a method of producing a video signal at a set top box (Abstract), wherein a step of combining video signals comprises warping a portion of one image of a first sequence of images (col. 3, 22-25; inserts can be a sequence of images according to col. 14, 45-47, and warping a sequence of images anticipates warping one image).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to warp one image of a first sequence of images as disclosed by Rosser for the purpose of correctly matching the image to the background image (col. 3, 23-25)

Claim 19, Hendricks does not further disclose:

modifying said presentation description in response to a user input.

Rosser discloses a method of producing a video signal at a set top box (Abstract) wherein the presentation description is modified in response to a user input (windows are resizable, magnifyable, and rotatable by the user; col. 5, 27-30)

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to modify the presentation description in response to a user input as disclosed by Rosser for the purpose of magnifying a window "to examine some detail of the video" (col. 5, 28-29) or rotating a window "for people who may want to lie down" (col. 5, line 30).

Claim 29, Hendricks does not further disclose:

wherein said decoder further produces first audio data in said memory from said first video information and produces second audio data in said memory from said second video information.

Rosser discloses a method of producing a video signal at a set top box (Abstract) wherein a decoder produces first audio data in a memory from a first video information (from original video, col. 3, line 23; audio data is stored in memory as part of the buffer of the program that is being watched; col. 5, 33-36) and second audio data in said memory from a second video information (from alternative feed, col. 13, line 24; audio data is stored in video/audio storage unit 152; fig. 4, col. 13, 24-25).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to store two audio data processed from video signals as disclosed by Rosser for the purpose of making audio insertions into a buffered program (col. 5, 33-36; col. 14, 45-47).

Claim 30, Hendricks does not further disclose:
wherein said presentation description further specifies the manner in which said first audio data is combined with said second audio data.

Rosser discloses a method of producing a video signal at a set top box (Abstract) wherein a presentation description further specifies the manner in which a first audio data is combined with a second audio data (see rejection of claim 29; the presentation description is inherent for the video/audio mixer 156 to be able to mix the audio streams; col. 14, 57-59)

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to mix two audio data together as disclosed by Rosser for the purpose of making audio insertions into a buffered program (col. 5, 33-36; col. 14, 45-47).

Claim 31, Hendricks further discloses:

a user interface that receives an input from a user (the set top box can query the user and receive responses, col. 34, 1-3).

Hendricks does not disclose that the input can modify the presentation description.

Rosser discloses a user interface that receives an input from a user that modifies a presentation description (windows are resizable, magnifyable, and rotatable by the user; col. 5, 27-30).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to use its user interface to modify the presentation description as disclosed by Rosser for the purpose of magnifying a window "to examine some detail of the video" (col. 5, 28-29) or rotating a window "for people who may want to lie down" (col. 5, line 30).

Claim 34, Hendricks does not further disclose:

wherein said program code operating in said processor further comprises:

a software routine that selects said presentation from a plurality of presentation descriptions contained in said first video signal

Rosser discloses a method of producing a video signal at a set top box (Abstract) wherein the program code operating in the processor comprises a software routine that selects a presentation from a plurality of presentation descriptions contained in the first video signal (multiple insertions can be downloaded during the first signal video transmission and stored in memory, which implies a selection of the associated overlay; col. 7, 55-58; the insertions can be contained within the video signal; col. 7, 37-38).

6. Claims 8 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks (US 5990927) in view of Butler (US 2002/0007493).

Claim 8, Hendricks does not further disclose:

receiving a network address at which a presentation description can be accessed.

Butler discloses a method of producing a video signal at a set top box (Abstract) wherein a step of accessing a presentation description comprises receiving a network address at which a presentation description can be accessed (receiving a network address is inherent when following hyperlinks to new documents [0020, 0021]; the documents contain presentation descriptions in HTML format [0020]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to receive network addresses at which presentations can be accessed as disclosed by Butler for the purpose of accessing content through the Internet [0017].

Claim 28, Hendricks does not further disclose:

a network interface that accesses a presentation description.

Rosser discloses a set top box that produces a combined video signal that contains a network interface that accesses a presentation description (a modem [0017] can be used to access documents containing presentation descriptions in HTML format [0020] over the Internet [0017]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Hendricks to be able to access presentation descriptions through a network interface as disclosed by Butler for the purpose of accessing content through the Internet [0017].

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosser (US 6446261) in view of Butler (US 2002/0007493).

Claim 21, Rosser does not further disclose:
transmitting a network address that said set top box employs to access said presentation description.

Butler discloses a method of producing a video signal at a set top box (Abstract) wherein a step of accessing a presentation description comprises transmitting a network address that said set top box employs to access said presentation description (the network address is transmitted as a hyperlink to another document [0020, 0021]; the documents contain presentation descriptions in HTML format [0020]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the set top box disclosed by Rosser to be able to transmit a network address that said set top box employs to access a presentation

description as disclosed by Butler for the purpose of accessing content through the Internet [0017].

8. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks (US 5990927) in view of Cheok (US 6934906).

Claim 33, Hendricks does not further disclose:

wherein said program code operating in said processor further comprises:

a software routine that controls said decoder to perform at least part of the combination of said portion of said first video image and said portion of said second video image in a manner specified by said presentation description.

Cheok discloses a set top box (col. 4, line 13) wherein a program code operating in the processor comprises:

A software routine that controls said decoder to perform at least part of the combination (the decoder instructions may contain integration instructions that integrate the decoder with an external application; col. 5, 24-32; the external application can render part of the scene; col. 5, 35-37) of a portion of a first video image and a portion of a second video image (the video images are contained in the MPEG-4 stream; col. 3, 55-56) in a manner specified by a presentation description (scene description information 225, Fig. 2).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bennett Ingvoldstad whose telephone number is (571) 270-3431. The examiner can normally be reached on M-F (alternate Fridays off) 7:30-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on (571) 272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BI

HAI TRAN
PRIMARY EXAMINER